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Religious Problem-Solving and the Complexity of Religious Rationality within an Iranian

Muslim Ideological Surround

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## Abstract

Comparative rationality analysis formally examines the incommensurable rationalities that theoretically exist within religions and the social sciences according to Ideological Surround Model (ISM) of the psychology of religion. This study extended use of these procedures to a new cultural context when 220 Iranian university students responded to the Religious Problem-Solving Scales of Pargament, Kennell, Hathaway, Grevengoed, Newman, and Jones (1988). As hypothesized, the Collaborative Problem-Solving Style was consistent and the Self-Directing Style was inconsistent with Iranian Muslim religious and psychological adjustment. The Deferring Style had ambiguous implications. Comparative rationality analysis demonstrated that sample interpretations of these styles explained greater variance in adjustment than did the original scales. These procedures also yielded the unexpected discovery that the Deferring Style included a secular as well as a religious form of Iranian rationality. These data most importantly supported the ISM claim that "future objectivity" requires empirical analyses of the incommensurable rationalities that operate within the psychology of religion.

Key words: Religious Problem-Solving Styles Ideological Surround Model Iran Incommensurable rationalities Religious and Psychological Adjustment

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Over two decades of research have led to the gradual methodological and theoretical development of an Ideological Surround Model (ISM) of the psychology of religion (e.g., Watson, 1993, 2011). This model rests upon the postmodern claim that all forms of understanding necessarily reflect the limiting perspective of some specific "interest" (Nietzsche, 1967/1887, p. 119). All knowledge of religion will, therefore, include an ideological element because all views on faith will emerge within the limiting perspectival surround of a somewhat non-empirical, normative, and sociological system of "interests" or beliefs (MacIntyre, 1978).

Among other things, the ISM interprets this influence of perspectives to mean that the science of psychology and the faith of religions will operate as incommensurable rationalities. To argue that rationalities are incommensurable is not to say that they are wholly incompatible, only that they are calibrated to different ultimate standards (MacIntyre, 1988). In religion, the standard will be some tradition-specific vision of God or Ultimate Reality. Observations consistent with that standard will be normatively "rational" within the sociological boundaries of the relevant religious community. In psychology, the at least implicit and sometimes explicit standard will be found in one or another naturalistic reading of the universe. Observations consistent with this ontological naturalism will be normatively "rational" within the sociological boundaries of professional scientific psychology. These rationalities will be only somewhat non-empirical because the standards themselves can be neither falsified nor confirmed scientifically; yet, each will operate as a rationality that is capable of organizing a vast array of empirical observations.

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Incommensurable rationalities will mean that knowledge created within one ideological surround is logically insufficient to falsify another. Above the "Nature" of scientific psychology and above the "God" of religion will be no higher standard for adjudicating assertions about the rationality of these ideological surrounds taken as a whole. In other words, advocates of different ideological surrounds will lack a common standard of evaluation that enables them to agree that interpretations of supposedly falsifying observations are "rational." The incommensurability of scientific and religious rationalities, therefore, threatens to dissolve all knowledge about religion into a postmodern swirl of relativism. A central claim of the ISM is that relativism confronts the psychology of religion as an undeniable logical and empirical reality; yet, the model also emphasizes that relativism can never be a productive normative assumption for any ideological surround. The task is to move beyond postmodernism toward a social science that formally accounts for the influences of relativism. Such a "post-postmodern" psychology of religion will rest upon three foundational assumptions.

First, a social science that accounts for relativism will acknowledge the perspectival nature of all observations about religion. Three broad types of perspectives will require attention. Emic perspectives will develop insightful (and supposedly more "subjective") descriptions of the rationalities that operate within a religious community. Etic perspectives will assess religious beliefs using the outside (and supposedly more "objective") frameworks of science (see e.g., Headland, Pike, & Harris, 1990). A purely etic psychology of religion could usefully clarify religious rationality, but could also misrepresent and colonize (i.e., illogically presume to explain away) a religious faith in terms of an incommensurable rationality. Conversely, a purely emic psychology of religion could help actualize potentials inherent within a religious rationality, but could also encourage a defensive and impoverishing ghettoization of religious thought. A

"dialogic" perspective, therefore, is necessary. Dialogic research should bring emic and etic perspectives into formal conversation. The goal would be to determine the degree to which one rationality could be translated into another and to examine the possible influences of, for example, colonization and ghettoization on religious and scientific thought. ISM methodologies seek to promote such dialog (e.g., Watson, 2011; Ghorbani, Watson, Rezazadeh, & Cunningham, 2011).

Second, progress in the psychology of religion will require processes of interpretation at a level of abstraction that rises above the merely perspectival. A community of interpretation committed to a particular ideological surround will need to articulate an increasingly sophisticated meta-perspective that successfully describes etic, emic, and dialogic findings about the psychology of religion. An essential task of any such interpretative community will be to evaluate its proposed meta-perspectival generalizations by assessing them relative to current understandings of the standard that defines what is rational for the community from "above" and relative to the etic, emic, and dialogic perspectival evidence that clarifies the empirical realities of the community from "below." That standard above could be either naturalistic or religious. In other words, the community of interpretation might be members of a social scientific society or followers of a particular school of theology dedicated to the advancement of the psychology of religion.

Third, advocates of different meta-perspectives will need to admit relativism as an empirical, but not as a normative reality. As MacIntyre (1990) emphasizes, incommensurability does not necessitate an embrace of relativism. Communities of interpretation will frequently want to extend their influence across ideological surrounds. Such communities will need to realize that one system of rationality can never overcome another through reason alone, because

each will operate within the surround of a different standard. The challenges of relativism can nevertheless be addressed by individuals who become increasingly fluent in the rationalities of multiple perspectives, a skill once described as the "future objectivity" by Nietzsche (1967/1887, p. 119). Such individuals will realize that the broader sociological challenges of relativism cannot be met through reason alone, but rather through narration. Different communities of interpretation will want to out-narrate each other. The task will be to tell increasingly compelling stories that present rhetorically powerful descriptions of other ideological surrounds within the developing narrative structures of a particular community of interpretation. The ISM assumes that etic narrations of the psychology of religion in absence of emic insight or emic narrations in the absence of etic insight will fail to tell stories that are compelling outside of their home ideological surrounds.<sup>1</sup>

# **Comparative Rationality Analysis**

Comparative rationality analysis is one among several ISM methodologies for promoting dialog among social scientific and religious perspectives (Watson, 2010). With this method, samples first respond to a psychological scale according to standard instructions. This measure can then be scored normally in terms of the etic ideological assumptions that informed construction of the instrument in the first place. Later, the sample responds to these very same items again. This time, however, participants do not react in terms of how strongly they agree or disagree that a statement applies to them personally. Instead, they express their perception of the degree to which each statement is consistent or inconsistent with commitments to personal religious norms. This procedure makes it possible to evaluate the meaning of questionnaire items relative to the emic religious rationality of the sample. Such evaluations can then be analyzed in two ways.

Analysis can first occur at a more "macro" level by simply computing a total evaluation score for the entire measure. Such scores will indicate how religiously rational a full scale will seem to each participant. Correlations of these macro-rationality scores with other measures will then clarify the implications of an etic rationality within the emic ideological surround of the sample. Three types of correlations will be important. First, if emic interpretations of a scale as being rational affect responding to an etic instrument, then a positive correlation should appear between macro-rationality scores and the original measure. Such a relationship would merely confirm the ISM expectation that personal tendencies to evaluate a measure as religiously rational will increase responding on that measure. Such a correlation will not reveal the broader meanings of that evaluation, however. Second, therefore, macro-rationality correlations with measures of emic commitment will be necessary to define the emic religious implications of seeing these items as religiously rational. Third, correlations with psychological scales will be necessary to assess the mental health implications of these macro-rationality evaluations.

This macro-rational attempt to promote dialog could produce a wide range of outcomes that are defined by two most obvious extremes. Etic and emic rationalities could prove to be fully compatible if macro-rationality scores predicted higher responding on the original etic scale along with greater religious commitment and enhanced psychological adjustment. Conversely, macro-rationality evaluations could point toward full incompatibility if they displayed linkages with higher scores on the etic instrument, but also with lower religious commitment and with psychological maladjustment. More ambiguous patterns could occur between these extremes.

As noted previously, emic evaluations of psychological scales can be analyzed in two ways. ISM procedures can also operate at the "micro" item level. Emic evaluations of questionnaire statements essentially use a strongly-incompatible-to-strongly-compatible with

religious beliefs 5-point Likert Scale. A series of Chi<sup>2</sup> analyses can, therefore, determine if a sample evaluates each item as incompatible or compatible with religious commitments.

Assuming that a statement is a positively worded expression of an etic norm, this item would be pro-emic if it proved to be significantly *not* inconsistent and/or significantly consistent with the religious beliefs of the sample. Anti-emic items would be obvious in the opposite pattern of significantly inconsistent and/or significantly *not* consistent evaluations. Other interpretations of Chi<sup>2</sup> results would, of course, be necessary if an item were a reverse worded expression of an etic norm, if the original scale operationalized an etic "irrationality" rather than "rationality," or if a sample evaluated a statement as both significantly *not* consistent and significantly *not* inconsistent (i.e., neutral) relative to religious commitments. The general point, however, is that micro-rationality analysis will make it possible to identify which etic items express pro-emic or anti-emic forms of rationality.

Once emic meanings of all items are defined, these meanings can be used to re-score the original etic measure in terms of the religious ideological assumptions of the sample. Pro-emic statements can be combined with anti-emic items now scored oppositely from what they were originally in order to create a new emic articulation of a measure that was previously scored in terms of the etic ideological assumptions of the original scale. Original etic and new emic interpretations of sample responses to the very same items can then be used in a comparative analysis of rationalities. An empirically superior rationality would presumably explain greater amounts of variance in religious and psychological adjustment and would perhaps yield insights that were unavailable within the ideological surround of the other rationality.

## **Religious Problem-Solving in Iran**

In previous research, comparative rationality analysis focused on largely Christian American samples (Watson, 2010). This investigation sought to explore the potentials of this method within a non-Christian religious ideological surround. This goal was accomplished by having Muslims in the formally theocratic society of Iran respond to Religious Problem-Solving Scales of Pargament, Kennell, Hathaway, Grevengoed, Newman, and Jones (1988).

Religious Problem-Solving Scales assess three styles of problem-solving. With a Self-Directing Style, individuals assume that it is their religious responsibility to solve problems on their own. A representative item says, "When faced with trouble, I deal with my feelings without God's help." Here, "God is viewed as giving people the freedom and resources to direct their own lives" (Pargament et al., 1998, p. 91). A Deferring Style points in the exact opposite direction. The individual takes no active role in solving problems and defers all responsibility to God. Illustrating this style is the self-report, "When faced with a decision, I wait for God to make the best choice for me." A Collaborative Style essentially reflects a dialectical synthesis of the other two. The individual actively works within the framework of a sincere commitment to God to solve problems. This style is exemplified by the assertion, "When faced with a question, I work together with God to figure it out." Numerous investigations have documented the validity of these measures in the West (e.g., Kaiser, 1991; Webb & Whitmer, 2001).

Within an Islamic ideological surround, the normative style of solving problems can be described as effortful resiliency within a commitment to God. In other words, problem-solving requires active human agency within a sincere submission to the guidance of God. This is so, in part, because God manifests himself within the powers of human reason to discover actions that are compatible with what God requires. A story by Rumi (1999/1258-1273) entitled "The Lion"

and the Beasts" can be read as expressing this appreciative Muslim evaluation of the roles of reason and personal effort in solving problems religiously.

The overall suggestion, therefore, is that Islamic problem-solving should be compatible with the Collaborative Style, which essentially points toward the religiously recommended combination of personal agency and sincere faith. On the other hand, Islamic problem-solving should be incompatible with a Self-Directing style, since each item of this instrument expresses an anti-Islamic independence from God. More complex possibilities seem possible for the Deferring Style. Some Deferring Style items suggest a rejection of human reason and agency in the solving of problems (e.g., "I do not think about different solutions to my problems because God provides them for me"). Still other items, nevertheless, appear to express a sincere commitment to God that is not incompatible with human agency (e.g., "I don't worry too much about learning from difficult situations, since God will make me grow in the right direction"). Hence, the expectation was that the Deferring Style would include a mix of items that were both rational and irrational within an Iranian Muslim ideological surround.

Additional scales made it possible evaluate the religious and psychological implications of these problem-solving measures in Iran. With regard to religious motivations, the Intrinsic Religious Orientation Scale records a sincere faith in which religion defines the final end or master motive in an individual's life (Gorsuch & McPherson, 1989). The Extrinsic-Personal Scale assesses the use of religion as a means to achieve psychological well-being as the end. The Extrinsic-Social measure reflects the use of religion to achieve desired social outcomes as the end. Numerous investigations have established the Intrinsic and especially the Extrinsic-Personal orientations as strong religious motivations that reliably predict psychological adjustment in

Muslim society (Ghorbani, Watson, & Khan, 2007). The Extrinsic-Social motivation instead appears to be weaker and to have ambiguous and often negative adjustment implications.

Integrative Self-Knowledge (Ghorbani, Watson, & Hargis, 2008) and Depression and Anxiety Scales (Costello & Comrey, 1967) Scales evaluated psychological functioning.

Integrative Self-Knowledge records tendencies to integrate past, present, and desired future self-experience into a meaningful whole. This scale is a clear index of adjustment in Iran and is clearly relevant to Muslim psychological ideals (Ghorbani et al., 2008, 2011). Costello and Comrey measures assess dispositional depression and anxiety and validly measure maladjustment in Iran (e.g., Ghorbani, Watson, Zarehi, & Shamohammadi, 2010).

## **Hypotheses**

In summary, this study used comparative rationality analysis to assess the macro- and micro-rational implications of Religious Problem-Solving Style Scales within an Iranian Muslim Ideological Surround. These procedures made it possible to test five broad sets of hypotheses.

First, the Collaborative Style should predict religious and psychological adjustment in Iran. This scale, in other words, should correlate positively with the Intrinsic, Extrinsic-Personal, and Integrative Self-Knowledge Scales and negatively with Depression and Anxiety. Opposite patterns of relationships should appear for the Self-Directive Style, with more ambiguous outcomes apparent for the Deferring Style.

Second, with macro-rationality evaluations scored in terms of the average response per item, Collaborative macro-rationality scores should be highest and Self-Directive scores the lowest, with the Deferring Style in between.

Third, each macro-rationality score should correlate positively with and display patterns of relationship similar to the corresponding original Religious Problem-Solving Scale. Such data

would confirm that tendencies to see as scale as religiously rational within Iran would have religious and psychological implications that paralleled the original scale.

Fourth, micro-rationality assessments should identify Collaborative items as largely consistent and Self-Directive items are largely inconsistent with the rationality of an Iranian Muslim ideological surround. Deferring items should instead display a mix of evaluations.

Fifth, problem-solving measures re-scored in terms of micro-rationality assessments should offer a superior empirical definition of Iranian Muslim rationality in comparison to the original Problem-Solving Scales. In other words, the micro-rational re-scored measures should explain greater variance in religious and psychological adjustment. They also should offer a more logically consistent empirical definition of what is rational for Iranian Muslims. Most obviously, perhaps, anti-emic Self-Directive items re-scored oppositely should offer a clearer analysis of what is rational in Iran by predicting religious and psychological adjusted instead of the maladjustment that was hypothesized for the original scale.

#### Method

## **Participants**

Research participants included 93 men, 125 women, and 2 individuals who failed to indicate their sex. All were undergraduates at the University of Tehran. Average age was 21.6 (SD = 2.58).

#### **Materials**

All psychological scales appeared in a single questionnaire booklet. Development of a Persian Integrative Self-Knowledge Scale occurred during initial development of this instrument (Ghorbani et al., 2008). Translation of the Religious Problem Solving Scales occurred in preparation for the present project with the translation of all other measures taking place prior to

previous Iranian studies. In these procedures, one individual translated each scale into Persian, and then another translated it back into English. Differences between original and back-translated measures were minor and easily eliminated through revisions in the Persian translation. Scales appeared in the questionnaire booklet in the sequence presented below.

Religious Problem-Solving. Each Religious Problem-Solving Scale is defined by 12 items (Pargament et al., 1988). Responding ranged across a strongly disagree (1) to strongly agree (5) Likert Scale. The Collaborative Style ( $\alpha$  = .89, M response per item = 3.39, SD = 0.80) appears in such statements as, "When it comes to deciding how to solve a problem, God and I work together as partners." An item expressing the Self-Directing Style ( $\alpha$  = .89, M = 2.06, SD = 0.78) asserts, "After I've gone through a rough time, I try to make sense of it without relying upon God." Illustrating the Deferring Style ( $\alpha$  = .86, M = 2.54, SD = 0.70) is the claim, "I do not become upset or nervous because God solves my problem for me."

Integrative Self-Knowledge Scale. The Integrative Self-Knowledge Scale ( $\alpha$  = .83, M = 2.63, SD = 0.70) includes 12 items that record efforts of the individual to synthesize past, present, and desired future self-experience into a meaningful whole (Ghorbani et al., 2008). One item says, for example, "If I need to, I can reflect about myself and clearly understand the feelings and attitudes behind my past behaviors." Reactions to each item occurred along 1 (largely untrue) to 5 (largely true) response options.

Religious Orientation. Gorsuch and McPherson (1989) Religious Orientations Scales as adapted to Islamic society assessed Intrinsic (8 items,  $\alpha = .77$ , M = 2.66, SD = 0.78), Extrinsic-Personal (3 items,  $\alpha = .80$ , M = 2.83, SD = 1.02), and Extrinsic-Social (3 items,  $\alpha = .74$ , M = 1.21, SD = 0.95) reasons for being religious. A representative item from the Intrinsic Scale says, "My whole approach to life is based on my religion." An Extrinsic-Personal motivation appears

in the self-report, "What religion offers me most is comfort in times of trouble and sorrow." The Extrinsic-Social Orientation is exemplified in the claim that "I go to activities associated with my religion because I enjoy seeing people I know there."

Anxiety and Depression. Costello and Comrey (1967) scales assess Depression (14 items,  $\alpha = .91$ , M = 1.10, SD = 0.77) and Anxiety (9 items,  $\alpha = .84$ , M = 1.70, SD = 0.82) as traits rather than states. Responses to each item ranged from 1 (strongly disagree) to 5 (strongly agree). Illustrating Depression is the self-report, "I feel sad and depressed." Indicative of Anxiety is the statement that "I'm a restless and tense person."

Religious Rationality of Religious Problem-Solving Styles. The final section of the questionnaire booklet presented the Religious Problem-Solving Scales once again, but with different instructions designed to have participants evaluate the religious rationality of each item. These instructions began, "You responded to some statements in the first part of this questionnaire that were constructed for other cultures and religions. Some of the items might be suitable for an Iranian Muslim, and some might not. ... We would like you to show how much each statement is suitable to be used with an Iranian Muslim." Participants made this determination by using a 5-point scale that ranged from "a good Iranian Muslim would strongly disagree with this statement" (1) to "a good Iranian Muslim would strongly agree with this statement" (5). Instructions then made it clear that "a good Iranian Muslim in these response options means 'a person who authentically tries to follow his or her religious ideals.""

### **Procedure**

Research procedures occurred in conformity with institutional ethical guidelines.

Participants volunteered for the project, and all responding was completely anonymous. Groups of varying size received the questionnaire booklet in a classroom setting.

The scoring of all instruments involved computation of the average response per item.

Data analyses began with an examination of correlations among all psychological and religious scales. Macro-rationality scores simply expressed the mean rationality of all items within each Religious Problem-Solving Scale. After examining mean differences in macro-rationality measures, statistical procedures assessed their relationships with other measures.

Again, micro-rationality analyses began with two series of Chi<sup>2</sup> analyses. In the first, Chi<sup>2</sup> tests compared the frequencies of the "strongly disagree" and "disagree" evaluations of what a "good Iranian Muslim" would believe with frequencies of the other three response options. The second set of analyses then compared the "strongly agree" and the "agree" evaluations with the other options. Items the sample found to be both significantly *not* inconsistent (i.e., the "disagree" options) and significantly *not* consistent (i.e., the "agree" options) with Muslim commitments were ideologically neutral and ignored in subsequent micro-rationality procedures.

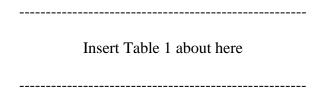
Items significantly *not* inconsistent and/or significantly consistent were ideologically compatible with Muslim commitments. The opposite pattern of significantly inconsistent and/or significantly *not* consistent evaluations defined ideologically incompatible items. Participant responses to the inconsistent items from the original Pargament et al. (1988) scales were then rescored in the opposite direction to make them consistent with Muslim ideology. Combining the consistent and re-scored inconsistent items produced a new micro-rationality scale reflecting a Muslim reinterpretation of responding on the original Pargament et al. measure.

Correlations of micro-rationality scores with other measures were computed first and followed by the final comparative rationality analysis. In these final multiple regression procedures, original scorings of the Religious Problems-Solving Scales and then separately the

micro-rational re-scoring of these very same responses predicted the religious and psychological functioning of the sample.

#### Results

Collaborative and Deferring Religious Problem-Solving Styles correlated positively with each other and negatively with the Self-Directing Style (see Table 1). Collaborative and Deferring Styles also predicted higher levels of all three religious orientations. Negative associations appeared between the Collaborative Style and Depression and between the Deferring Style and Integrative Self-Knowledge. The Self-Directing Style correlated negatively with the Intrinsic and the Extrinsic-Personal Religious Orientations and positively with Depression. The Intrinsic Scale predicted greater Integrative Self-Knowledge and lower Depression and Anxiety. The Extrinsic-Personal motivation displayed an inverse linkage with Depression. Extrinsic-Social scores correlated negatively with Integrative Self-Knowledge and positively with Anxiety.

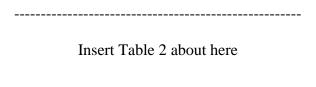


## **Macro-Rationality Analysis**

Again, macro-rationality assessments involved an evaluation of all items within each Religious Problem-Solving Scale in terms of what "a good Iranian Muslim" would believe. Average ratings per item expressed the macro-rationality of a scale with higher scores reflecting beliefs deemed to be relatively more compatible with Iranian norms. The macro-rationality of the Collaborative Style was highest ( $\alpha = .90$ , M = 2.76, SD = 0.87), the Self-Directing Style was lowest ( $\alpha = .90$ , M = 1.02, SD = 0.80), and the Deferring Style fell in between ( $\alpha = .85$ , M = 1.84,

SD = 0.77). Differences among these macro-rationality measures were statistically significant, Greenhouse-Geisser F [1.67, 358.18] = 239.20, p < .001, with each mean significantly different from the other two (ps < .001).

Table 2 reviews the relationships observed for the macro-rationality scores. Collaborative macro-rationality correlated positively with the Deferring and negatively with the Self-Directing macro-rationalities. These latter two macro-rationality measures displayed no significant linkage. Collaborative macro-rationality predicted higher scores on the Collaborative Style, the Intrinsic Scale, and the Extrinsic-Personal Orientation along with lower scores on Depression. Self-Directing macro-rationality correlated positively with the Self-Directing Style while also exhibiting negative linkages with the Intrinsic, Extrinsic-Personal, and Integrative Self-Knowledge measures and direct associations with the Extrinsic Social Orientation and Depression. Finally, Deferring macro-rationality correlated positively with the Deferring Style and with the Extrinsic Personal motivation.



## **Micro-Rationality Analysis**

Again, micro-rationality analyses involved the use of two Chi<sup>2</sup> tests to analyze the rationality of each item within a scale. In these procedures, the strongly disagree and disagree (i.e., the normatively incompatible) response frequencies for each statement were compared to frequencies of the other three response options. Then, frequencies of the strongly agree and agree (i.e., the normatively compatible) responses were compared to frequencies of the other three options. Statements consistent with Iranian Muslim norms would display a pattern of responses

that were significantly *not* incompatible and/or significantly compatible with what a "good Iranian Muslim" would believe. This pattern appeared with the Collaborative Style. All 12 Collaborative Style statements displayed significantly lower frequencies of the inconsistency ratings,  $\text{Chi}^2(1) \geq 43.47$ , p < .001, and 10 of the 12 items also exhibited significantly more frequent consistency ratings,  $\text{Chi}^2(1) \geq 5.81$ , p < .05. These data, therefore, pointed toward identical scorings for the original and the micro-rational interpretations of the Collaborative Style.

Conversely, statements inconsistent with Iranian Muslim norms would display a pattern of responses that were significantly incompatible and/or significantly *not* compatible with what a "good Iranian Muslim" would believe. This pattern appeared with the Self-Directing Style. All 12 of these items displayed significantly higher frequencies of the inconsistency ratings,  $Chi^2$  (1)  $\geq 7.89$ , p < .01, and all 12 also proved to be significantly *not* consistent with Iranian Muslim norms,  $Chi^2$  (1)  $\geq 80.57$ , p < .001. The micro-rational re-scoring of the Self-Directing style, therefore, was exactly opposite that of the original scale and could be described instead as Self-Direction Rejection (SDR). Hence, correlations for SDR were the same as for the original scale, except in the opposite direction. In other words, SDR correlated positively with the Intrinsic (.51) and the Extrinsic-Personal Religious Orientations (.49) and negatively with Depression (-.27, ps < .001).

More complex outcomes appeared with the Deferring Style (see Table 3). Four statements were both significantly *not* inconsistent and significantly *not* consistent with Iranian Muslim norms, and thus were neutral relative to Iranian religious rationality. Three other items proved to be significantly *not* inconsistent and/or significantly consistent, and hence proved to be compatible with what a "good Iranian Muslim" would believe. The remaining 5 items were

significantly inconsistent and/or significantly *not* consistent, and thus incompatible with Iranian norms.

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### Insert Table 3 about here

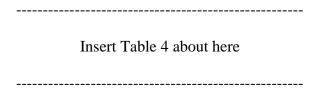
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A micro-rational rescoring of the original responses to the Deferring Style first involved an elimination of the 4 neutral statements. Then, "inconsistent" items were re-scored in the opposite direction so that higher values expressed a rejection rather than an embrace of these beliefs as more reflective of the Iranian Muslim rationality of the sample. Combination of the 5 re-scored and original 3 consistent items into a single new measure produced the micro-rational reinterpretation of this style. This new scale failed to display an acceptable internal reliability (α = .08), an outcome which served as warrant for factor analyzing these 8 items. A principal component analysis with a varimax rotation uncovered two factors. The five re-scored items defined a first factor that was associated with had an eigenvalue of 3.06 and explained 38.3% of the variance. Loadings of the rescored statements on this factor were .48 for item 3, .71 for item 6, .71 for item 7, .61 for item 8, and .55 for item 10. This Rejection of Thoughtless Religious Coping (RTRC) factor had an internal reliability of .71. The second factor described 13.3% of the variance and had an eigenvalue of 1.06. The 3 "consistent" Deferring Style statements described this factor and displayed loadings of .48 for item 9, .65 for item 11, and .89 for item 12. This Faith in God Solving Problems (FGSP) factor had an internal reliability of .57.

Correlation between these two factors was -.50 (p < .001). In addition, RTRC correlated positively with Integrative Self-Knowledge (.29) and negatively with the Deferring Style (-.89), the Collaborative Style (-.24), the Extrinsic Personal (-.19) and Social (-.29) Orientations,

Depression (-.14), and Anxiety (-.17, ps < .05). RTRC did not correlate with the Intrinsic Orientation (-.07, p = .31), nor with the Self-Directing Style (.10, p = .13). In contrast, FGSP correlated positively with the Deferring (.75) and Collaborative (.47) Styles and with the Intrinsic (.32), Extrinsic-Personal (.31), and Extrinsic-Social (.21) Religious Orientations. This factor also correlated negatively with the Self-Directing Style (-.33), Depression (-.20), and Anxiety (-.16, ps < .05).

Table 4 compares the original and the micro-rational re-scorings of the Religious Problem-Solving Styles. Again, multiple regression procedures used these alternative interpretations of initial responses to the Pargament et al. (1988) scales to predict the other religious and psychological measures. Multiple *R* values make it clear that the two scoring procedures were roughly comparable in predicting religious variables. As an expression of Iranian Muslim rationality, however, the micro-rational rescoring of the Self-Directing Style items was more ideologically valid because the SDR displayed a positive rather than a negative association with the Intrinsic and the Extrinsic-Personal Orientations. These analyses also suggested that the previously observed linkage of the Deferring Style with the Extrinsic-Social Orientation was explained by the embedded influence of the RTRC items, which exhibited an inverse connection with this religious orientation.



Micro-rational measures proved to be stronger and more consistent predictors of psychological adjustment. This was obvious in the higher Multiple *R* values obtained for the rescored measures and also in a significant finding for Anxiety that failed to appear with the

original scales. Although RTRC and FGSP had displayed a fairly robust negative relationship with each other of -.50 (p < .001), each nevertheless served as an independent predictor of relative psychological adjustment. This was evident in associations with greater Integrative Self-Knowledge and with lower Depression and Anxiety. The previously observed positive linkage of the original Collaborative Style with Integrative Self-Knowledge seemed largely explicable in terms of the FGSP factor, and the initial Deferring Style connection with lower Integrative Self-Knowledge apparently reflected the influence of the now oppositely re-scored RTRC items. The original Collaborative Style relationship with lower Depression seemed largely attributable to FGSP, and RTRC items apparently explained the initial linkage of the Deferring Style with Depression. The now oppositely scored RTRC items also appeared to underlie the significant initial connection of the Self-Directing Style with Depression. Overall, these data most importantly pointed toward the superior validity of the micro-rationality measures in interpreting Iranian understandings of religious problem-solving.

## **Clarifying Analyses**

Most surprising in these micro-rationality data were the contrasting religious implications of the two Deferring Style factors. FGSP correlated positively with all three religious orientations, but RTRC correlated negatively with the Extrinsic and non-significantly with the Intrinsic Religious Orientations. The unexpected suggestion, therefore, was that RTRC might reflect a more anti-religious form of rationality. But was this outcome only apparent because negative linkages with the two Extrinsic Scales obscured an otherwise positive relationship of RTRC with the Intrinsic Religious Orientation? This proved not to be the case. Partial correlation controlling for the two extrinsic religious motivations revealed that RTRC still did not correlate significantly with the Intrinsic Scale (.03, p = .68).

As another attempt to clarify these unexpected findings, multiple regression procedures examined whether the Intrinsic Orientation might moderate relationships of the two Deferring Style factors with other variables (Baron & Kenny, 1986). In conformity with the recommendations of Aiken and West (1991), the predictor variables of RTRC, FGSP, and the Intrinsic Scale were standardized prior to these procedures. In a first set of analyses, RTRS and the Intrinsic Scale served as predictors on the first step of the multiple regressions with their interaction then entered in on the second step. In a second set of analyses, FGSP and the Intrinsic Scale were entered on the first step and then their interaction in on the second step. Examination of multiple regression results focused on unstandardized coefficients given that all predictors were standardized prior to their entry in the regression equation.

Neither RTRC nor FGSP interacted with the Intrinsic Scale to predict the Extrinsic-Personal or Social Religious Orientations. With regard to psychological variables, the RTRC and Intrinsic measures interacted to predict Integrative Self-Knowledge ( $\beta$  = -.11, p < .01). Significant FGSP interactions with the Intrinsic Scale also appeared with regression equations for Integrative Self-Knowledge ( $\beta$  = .19, p < .001), Depression ( $\beta$  = -.11, p < .05), and Anxiety ( $\beta$  = -.20, p < .001). As Figure 1 makes clear, RTRC was a much more robust predictor of Integrative Self-Knowledge when the Intrinsic Religious motivation was low. In contrast, FGSP was associated with superior mental health (i.e., greater Integrative Self-Knowledge and lower Depression and Anxiety) when the Intrinsic motivation was high, but with poorer psychological adjustment when this religious motivation was low.

Insert Figure 1 about here

#### Discussion

Central to the ISM of the psychology of religion is the assumption that religions and scientific psychology operate as incommensurable rationalities. As a consequence, relativism invariably challenges the use of reason to achieve insight across religious and social scientific ideological surrounds. But if a relativism of perspectives is an unavoidable empirical reality, then a truly objective social science of religion (and religious understanding of the social sciences) must include at least some analysis of the impact of perspectives on the conclusions of reason.

Comparative rationality analysis is one among a number of ISM methodologies designed for that purpose. Previous studies utilizing this procedure focused on American Christian samples (e.g., Watson, 2011). The present project extended comparative rationality analysis to a completely new cultural context by examining Religious Problem-Solving Scales (Pargament et al., 1988) in Iran.

## **Original Scales**

Results using the original Religious Problem-Solving Scales confirmed the validity of social scientific rationality in clarifying the psychology of Muslim religion. As expected, the Collaborative Problem-Solving Style was compatible and the Self-Directing Style was incompatible with the religious and psychological adjustment of Iranian Muslims. This conclusion received support in positive correlations of the Collaborative Style with the Intrinsic and Extrinsic-Personal Religious Orientations and in its negative linkage with Depression. The Self-Directing Style displayed an opposite pattern of associations.

Evidence also confirmed the hypothesis that the Deferring Style would have ambiguous implications in Iran. This original scale did correlate positively with all three religious orientations, suggesting a broad compatibility with Islamic religious commitments. At the same

time, however, this measure also exhibited a negative linkage with Integrative Self-Knowledge. This outcome was especially noteworthy in questioning the normative acceptability of the Deferring Style within a Muslim ideological surround because traditional (Ghorbani, Watson, Bing, Davison, & LeBreton, 2003) and more recent (Ghorbani et al., 2011) Islamic thought emphasizes self-knowledge as a psychological ideal.

# **Macro-rationality Analyses**

Comparative rationality analysis made it clear that the rationality of the sample usefully supplemented the social scientific rationality of the original scales in promoting an even more insightful psychology of Muslim religion. Mean macro-rationality scores conformed to expectations. Specifically, the Collaborative Style proved to be most rational relative to Iranian Muslim norms. The Self-Directing Style was least rational, and the Deferring Style was in between.

Significant correlations of each macro-rationality score with the corresponding Religious Problem-Solving Scale confirmed the ISM suggestion that tendencies to evaluate a measure as ideologically rational would predict stronger responding on that measure. Such results in Iran as in the United States (e.g., Watson, Morris, & Hood, 1988) clearly support the ISM argument that ideological norms have an impact on participant responding to psychological scales.

In addition, macro-rationality scores for the Collaborative Style paralleled the original instrument in correlating positively with the Intrinsic and Extrinsic-Personal Orientations and negatively with Depression. Although the original Collaborative Scale had displayed a direct connection with the Extrinsic-Social Orientation, this relationship was not significant for the macro-rationality scores. Previous research has identified the Extrinsic-Social Orientation as unclear and sometimes negative in its adjustment implications in Muslim societies (Ghorbani et

al., 2007). Indeed, in the present study, negative features of the Extrinsic-Social Orientation seemed apparent in its inverse relationship with Integrative Self-Knowledge and in its positive tie with Anxiety. Macro-rationality scores, therefore, seemed superior to the original scale in pointing toward the questionable Muslim meaning of this religious orientation.

Macro-rationality scores also seemed superior to the original scale in spotlighting the ideologically problematic features of the Self-Directing Style. Like the initial scale, Self-Directing macro-rationality scores correlated negatively with the Intrinsic and Extrinsic-Personal motivations and positively with Depression. In addition, however, these scores identified the additional ideological liabilities of a stronger Extrinsic-Social Orientation and lower levels of Integrative Self-Knowledge.

Finally, the ambiguity of the Deferring Style was even more apparent in the macrorationality data. The original scale had correlated positively with all three religious orientations,
but Deferring Style macro-rationality scores displayed a direct relationship with only the
Extrinsic-Personal Orientation. In other words, the prediction that the Deferring Style would be
at least somewhat obscure in its Iranian Muslim meanings seemed more apparent in the reduced
number of significant relationships observed for these macro-rationality scores.

# **Micro-rationality Analysis**

Micro-rationality data were particularly important in documenting the potentials of comparative rationality analysis. Micro-rationality assessments confirmed that all Collaborative Style items were consistent and all Self-Directing Style items were inconsistent with an Iranian Muslim ideological surround. Reversals in the scoring of the Self-Directing items then produced a Self-Direction Rejection Scale that operated as a more valid normative expression of Iranian Muslim rationality.

Even more revealing and unexpected outcomes came with micro-rationality assessments of the Deferring Scale. The hypothesis was this style would be ambiguous in Iran, and indeed micro-rationality evaluations uncovered 4 neutral, 3 consistent, and 5 inconsistent items. The 3 consistent items defined a Faith in God Solving Problems (FGSP) measure that clearly recorded religious and psychological adjustment in Iran. However, the 5 inconsistent items pointed toward the unexpected discovery that two Iranian rationalities rather than one seemed to operate within this sample. The reversed scoring of these 5 inconsistent items defined a Rejection of Thoughtless Religious Coping (RTRC) that correlated negatively with the FGSP, Extrinsic-Personal, and Extrinsic-Social religious variables while also predicting the psychological well-being of greater Integrative Self-Knowledge and lower Depression and Anxiety. In other words, RTRC emerged as a non-religious, more secular form of rationality that also predicted adjustment.

How could a secular rationality emerge within a formally theocratic society? Moderation analyses supplied clues about how this question might be answered. For those higher in an Intrinsic Religious Orientation, at least some harmony seemed apparent between FGSP and RTRC. This was so because both factors yielded at least some evidence of promoting generally better psychological adjustment in these participants. In contrast, for those lower in their Intrinsic Orientation, FGSP instead predicted psychological maladjustment while RTRC displayed an especially strong linkage with greater Integrative Self-Knowledge. The suggestion, therefore, was that Iranians unable to have as strong religious commitments may find it necessary to turn away from faith in God to an even greater reliance on the self in order to achieve psychological well-being.

For theorists committed to a social scientific meta-perspective, such data perhaps point toward an "internal contradiction" within Muslim rationality. Micro-rationality assessments identified the FGSP and the re-scored RTRC items as consistent with a Muslim ideological surround. Yet these two measures correlated negatively with each other. In other words, beliefs "internal" to Muslim commitments "contradicted" each other. Within at least some segments of the Iranian population, Islamic beliefs, therefore, seemed to promote division rather than unity in Muslim rationality. This "internal contradiction" would mean that cultural efforts to enhance Islamic commitments would presumably strengthen the ideologically acceptable beliefs of RTRC, which in turn would weaken Islamic commitments to, for example, FGSP and other correlated elements of faith. Hence, this "internal contradiction" would mean that a strengthening of Islamic commitments would simultaneously weaken them and challenge the stability of the Iranian Muslim ideological surround. Operating within a secular Hegelian social scientific ideological surround, Fukuyama (2006) offers precisely this kind of analysis of Iranian and other similar societies. Such societies, he argues, encourage traditional commitments at the expense of innate needs of the self. The internal contradiction between tradition (as thesis) and the self (as antithesis) theoretically necessitates an eventual dialectical synthesis that will produce a more stable cultural form.

For theorists committed to an Islamic meta-perspective, such data will point toward the need to answer numerous potentially important questions. Why would two beliefs apparently consistent with an Islamic ideological surround correlate negatively? What psychological and cultural factors explain the adjustment implications of FGSP that are positive in some and negative in others? How can lower levels of an Intrinsic Religious Orientation be understood within a formally theocratic society? What cultural resources are available for healing this

apparent division in Muslim rationality? What cultural responses would make that division worse?

These are only examples of the kinds of questions that could and presumably should be asked. At the broadest level, the ISM argues that any ultimately valid understanding of social life requires an objectivity that observes issues from multiple perspectives. The further assumption is that greater meta-perspectival understanding is essential for the positive development of any ideological surround. This would be as true of a religious as of a social scientific ideological surround. At the broadest level, therefore, the present data suggest that a formally Islamic social science needs to develop an increasingly sophisticated meta-perspective that obtains etic, emic, and dialogic perspectival evidence from "below" and then tries to interpret the FCSP and RTRC findings in terms of Islamic standards from "above."

#### **Conclusions**

Conclusions about the present results must, of course, be conditioned by an awareness of the numerous limitations of this project. One limitation may deserve special emphasis, however. This study used a sample of university students who will not be representative of the Iranian population as a whole. FGSP and RTRC might not correlate negatively in other, perhaps more religious elements of Iranian society. Data already make it clear, for example, that university students pursuing more secular careers can display significant religious and psychological differences from Islamic seminary students who are studying to become mullahs (Ghorbani, Watson, Chen, & Dover, in press). Seminary students presumably would display little or no evidence of secularization in their rationality. FCSP and RTRC might correlate positively in such a sample. If this proved to be the case, then the complexity of rationality within a theocratic society would be documented even more clearly.

In summary, this project most importantly supported the ISM claim that the psychology of religion requires empirical attention to incommensurable rationalities. The present use of comparative rationality analysis demonstrated that social scientific and religious rationalities can and should be brought into dialog. This procedure makes it possible to determine if one rationality is superior to another in describing a psychology of religion. Again, a superior rationality should explain greater variance in religious and psychological adjustment and perhaps yield insights that are unavailable within the ideological surround of another rationality. So in this study, which rationality was superior? Before answering that question, it is important to emphasize that to say one rationality is superior cannot mean that another rationality is unimportant. The development of diverse meta-perspectives in the psychology of religion will require the on-going analysis of as many rationalities as possible. Nevertheless, the obvious conclusion of the present project is that Iranian Muslim micro-rationality was unquestionably superior to the social scientific rationality of the original problem-solving scales. In multiple regression analysis, this Iranian rationality explained greater variance in religious and psychological adjustment. It also yielded unexpected insights into a possible secularization of Iranian reason. Most generally, therefore, this investigation documented the potentials of ISM methodologies to promote "future objectivity" in the psychology of religion.

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#### Footnote

<sup>1</sup> To this necessarily brief perspective on perspectives, at least four additional points deserve passing mention. First, emic thought could also be colonizing in its intent, and an emic combination of colonization and ghettoization would likely represent an especially threatening narrative when evaluated within the meta-perspectives of other ideological surrounds. But also note that emic critics might complain that etic perspectives sometimes combine ghettoization with colonization. They could point to classical Freudian psychoanalysis as only one of many possible examples. In addition, an etic perspective would surely want to actualize potentials inherent in its own rationality, and emic communities could seek to clarify etic frameworks. In short, both emic and etic perspectives will presumably display tendencies toward actualization, colonization, clarification, and ghettoization. Nor would this exhaust the possibilities. Goals to promote coexistence between ideological surrounds, for example, might range from begrudging detente to enthusiastic cooperation.

Second, the ISM focus on the importance of creating compelling narratives across ideological surrounds indicates that a perspective sometimes has the intent of evangelicalism rather than colonization. An emic community might attempt to combine etic clarification with emic actualization to construct a new, more compelling emic evangelical narrative. But the parallel possibility would exist for etic meta-perspectives as well. In other words, an etic community might attempt to combine emic clarification with etic actualization to construct a new, more compelling etic evangelical narrative.

Third, this differentiation between etic and emic perspectives roughly corresponds to frameworks taken from anthropology (e.g. Headland et al, 1990). In the introduction to this paper and more typically, the etic perspective is scientific. However, the ISM defines the word "etic"

more broadly as any "outside" perspective. Relative to one religion, an etic perspective might be another religious rather than a social scientific perspective. This other religious perspective might have "outside" insights that could usefully clarify a particular emic perspective. Social scientific methodologies might facilitate dialog between two religious perspectives, but hermeneutical and other methodologies might be useful as well. Indeed, hermeneutical and other methodologies might also be useful in encouraging dialog between religious and social scientific perspectives (see e.g., Watson, 2004).

Fourth and finally, the ISM assumes that all perspectives on the psychology of religion necessarily express the rationality of a somewhat non-empirical standard. This would be as true of the originating framework of the ISM itself as of any other approach. As noted previously, the ISM emerges out of Quaker ideology and attempts to manifest the "rationality" of Christian pacifism (Watson, 2006). Numerous implications are associated with this ideological surround, but two might be mentioned briefly. First, understandings across ideological surrounds would presumably be necessary to promote the meaningful non-violent achievement of peace, but they would not be sufficient. This is so because not all ideological surrounds will have standards that evaluate pacifism as "rational." The challenge of pacifist and non-pacifist ideological surrounds will be to out-narrate each other. Second, any presumption that the ISM can manifest itself only within a pacifist ideological surround would point toward a self-refuting non-pacifist tendency toward colonization. ISM-like approaches to the challenges of relativism are presumably essential and possible across diverse etic and emic perspectives. Indeed, this project is meant to demonstrate that the ISM is compatible with an Islamic ideological surround and that the metaperspectival development of a formally Muslim psychology of religion is an important task of the future.

Table 1 Correlations among Religious Problem-Solving, Religious Orientation, and Psychological Variables

Variables	1	2.	3.	4.	5.	6.	7.	8.	9.
Religious Problem Solving									
1. Collaborative Style	-	53***	.45***	.48***	.56***	.18**	.13	25***	04
2. Self-Directive Style		-	27***	51***	49***	10	11	.27***	.04
3. Deferring Style			-	.24***	.34***	.32***	16*	.02	.08
Religious Orientation									
4. Intrinsic				-	.50***	.18***	.26***	35***	19**
5. Extrinsic-Personal					-	.20**	.01	31***	.06
6. Extrinsic-Social						-	23**	.10	.17*
Psychological Measures									
7. Integrative Self-Knowled	ge						-	51***	59***
8. Depression								-	.50***
9. Anxiety									-

<sup>\*\*\*</sup> *p* < .001

Table 2

Correlations of Macro-Rationality Assessments with Each Other and with Religious ProblemSolving Styles, Religious Motivations, and Psychological Measures

-	Macro-Rationality Assessment						
Variable	Collaborative Style	Self-Directing Style	Deferring Style				
Macro-Level Rationality Asses	sment						
Collaborative Style	-	40***	.30***				
Self-Directing Style		-	.01				
Deferring Style			-				
Religious Problem-Solving Sty	le						
Collaborative Style	.31***	11	.12				
Self-Directing Style	08	.33***	.04				
Deferring Style	.05	.04	.46***				
Religious Orientation							
Intrinsic	.19**	26***	05				
Extrinsic-Personal	.25***	19**	.14*				
Extrinsic Social	05	.14*	.03				
Psychological Variables							
Integrative Self-Knowledge	.09	22**	08				
Depression	15*	.24***	.07				
Anxiety	.04	.05	02				

Table 3

Inconsistent (I), Consistent (C), and Neutral (N) Deferring Style Items Based upon Frequencies of Inconsistency Compared to Other (I/O) and Consistency Compared to Other (C/O) Ratings<sup>1</sup>

<u>Item</u>		I/O	Chi <sup>2</sup>	C/O	Chi <sup>2</sup> _	Type of Item
1.	Rather than trying to come up with the right solution to a problem myself, I let God decide how to deal with it.	88/126	6.75**	71/143	22.22***	N
2.	In carrying out solutions to my problems, I wait for God to take control and know somehow He'll work it out.	82/132	11.68**	75/139	19.14***	N
3.	I do not think about different solutions to my problems because God provides them for me.	122/90	4.83*	50/162	59.17***	I
4.	When a troublesome issue arises, I leave it up to God to decide what it means for me.	86/127	7.89**	90/123	5.11*	N
5.	When a situation makes me anxious, I wait for God to take those feelings away.	87/121	5.56*	68/140	24.92***	N
6.	When faced with a decision, I wait for God to make the best choice for me.	135/77	15.87***	43/169	74.89***	Ι
7.	I don't spend much time thinking about	142/70	24.45***	24/188	126.87***	I

troubles I've had; God makes sense of them for me.

- 8. When I have a problem I try not 133/81 12.64\*\*\* 42/172 78.97\*\*\* I to think about it and wait for God to tell me what it means.
- 9. I do not become upset or nervous 66/144 28.97\*\*\* 102/108 0.17 C because God solves my problems for me.
- 10. When I run into trouble, I simply trust 102/110 0.32 63/149 34.89\*\*\* I in God knowing that he will show me the possible solutions.
- 11. I don't worry too much about learning 70/138 22.23\*\*\* 92/116 2.77 C from difficult situations, since God will make me grow in the right direction.
- 12. God solves problems for me without 22/190 133.13\*\*\* 154/58 43.47\*\*\* C my doing anything.

<sup>&</sup>lt;sup>1</sup> The total frequency of evaluations varies across statements because participants sometimes failed to respond to an item.

Table 4

Comparative Rationality Analysis of Original and Micro-Rational Re-scorings of Religious Problem-Solving Styles<sup>a</sup>

Dependent	Original β of Original Scorings			Micro-rational β for Micro-Rational Re-Scorings					
Variable	Multiple R	CS	SDS	DS	Multiple R	CS	SDR	RTRC	FGSP
Religious Measures									
Intrinsic	.55***	.25**	37***	.03	.56***	.27**	.35***	.09	.14
Extrinsic-Personal	.61***	.38***	26***	.10	.61***	.40***	.27***	06	.01
Extrinsic-Social	.32***	.05	.01	.30***	.31***	.10	.01	25***	.03
Psychological Measures									
Integrative Self-Knowledge	.28***	.22**	07	28***	.45***	.16	.01	.45***	.28***
Depression	.33***	23**	.19*	.18*	.41***	14	14	32***	25**
Anxiety	.12	09	.03	.13	.34***	.02	.03	34***	35***

<sup>a</sup>Original scorings include the Collaborative Style (CS), Self-Directing Style (SDS), and Deferring Style (DS), and micro-rational rescorings include the Collaborative Style (CS), Self-Direction Rejection (SDR), Rejection of Thoughtless Religious Coping (RTRC), and Faith in God Solving Problems (FGSP).

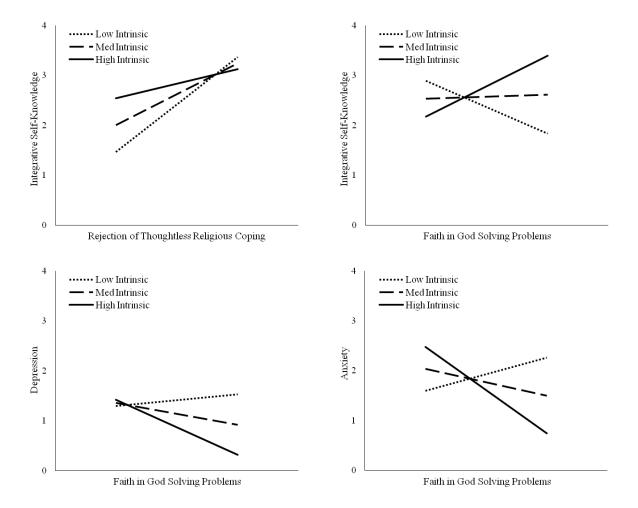


Figure 1. Significant interactions of the micro-rationality Deferring Style factors with the Intrinsic Religious Orientation in predicting psychological functioning. The three lines of each graph represent the Intrinsic Scale moderator variable at low (1 *SD* below its mean), medium (mean), and high (1 *SD* above its mean) levels.